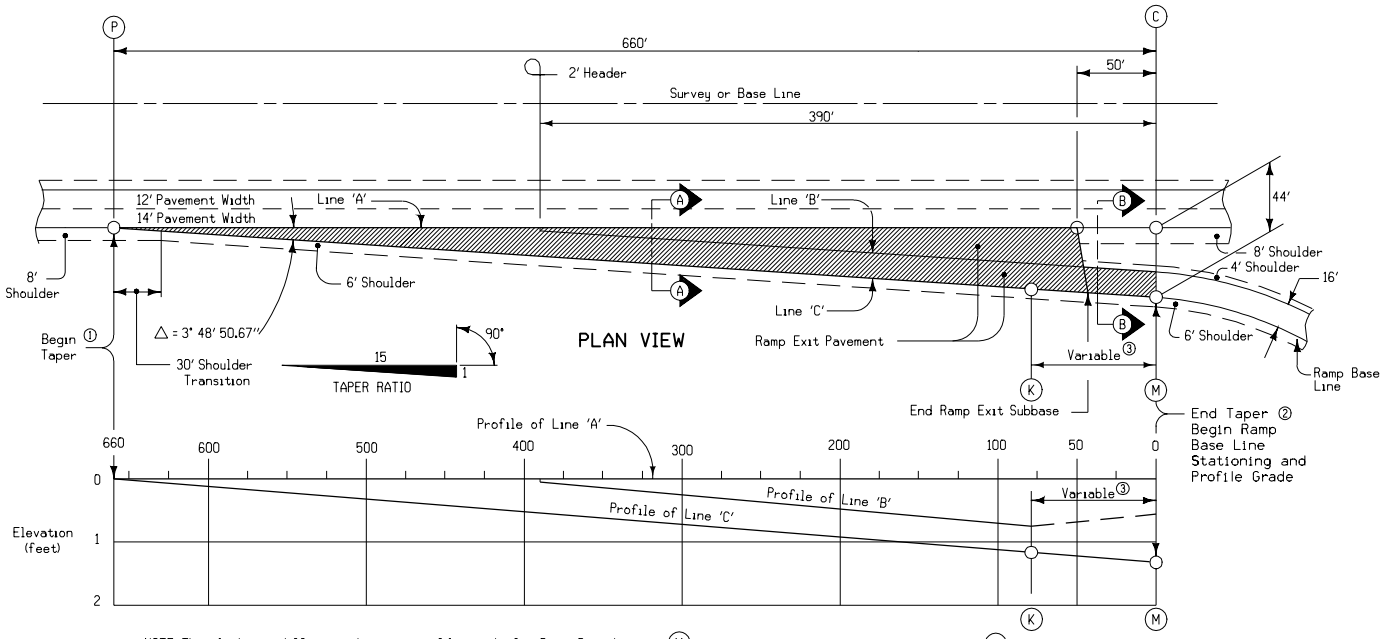


NOTE: The algebraic difference between profile grade for Ramp Base Line at (M) and relative profile grade of Mainline at (C) is 0.2%.

PROFILE

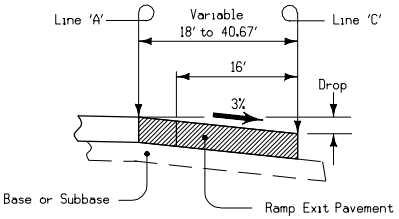
(C)

TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER

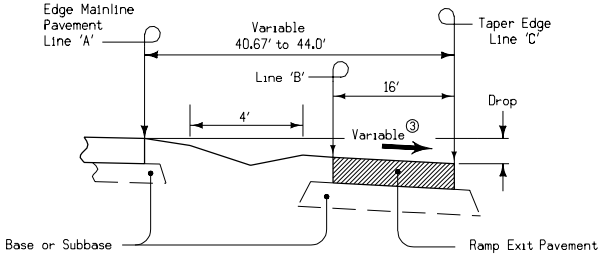
DISTANCE (Ft.)	660	650	625	600	575	550	525	500	475	450	425	400	390	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	0	0.67	2.33	4.00	5.67	7.33	9.00	10.67	12.33	14.00	15.67	17.33	18.00	19.00	20.67	22.33	24.00	25.67	27.33	29.00	30.67	32.33	34.00	35.67	37.33	39.00	40.67	42.33	44.00
DROP (Ft.)	0	0.02	0.07	0.12	0.17	0.22	0.27	0.32	0.37	0.42	0.47	0.52	0.54	0.57	0.62	0.67	0.72	0.77	0.82	0.87	0.92	0.97	1.02	1.07	1.12	1.17	1.22	1.27	1.32

NOTE: The elevations at edge of taper from BEGIN TAPER to POINT 'M' are established by a constant 3% slope across the appropriate taper widths based on the Taper Ratio of 15:1. Drop = (0.03) x (Offset).

(M)



SECTION A-A



SECTION B-B

GENERAL NOTES:

This detail sheet shows ramp alignment and grade data for the ramp exit pavement.

Ramp exit pavement shall be the same thickness as the mainline pavement. Ramp exit subbase for both HMA and P.C.C. pavement shall be the same thickness as the mainline subbase.

Ramp exit pavement area shown by shaded area is 1473 square yards.

In order to assure proper drainage, any special shaping of exit area between lines A and B shall be accomplished by methods approved by the Engineer.

Refer to Detail Sheet 550-5 for jointing layout.

Refer to typical cross sections and appropriate Standard Road Plans for design details and requirements for shoulders.

(1) For header construction details at the beginning of taper, refer to the appropriate Typical 7101 or 7102.

(2) Refer to detail project plans for ramp alignment, profile grade, and superelevation data. Equate Point 'M' (Ramp Stationing) to Point 'C' (Mainline Stationing).

(3) The ramp pavement cross slope between point (K) and point (M) is determined by superelevation rotated about line C. Refer to Standard Road Plan RP-3 and detail project plans for superelevation transition requirements.

This design is based on 60 mph design speed at e max = 6%.

For location equivalent stations see Tabulation 101-15

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN **RV-4**

REVISION: Added Note Equating Point 'M' to Point 'C'.

REVISION NO. 3

William J. Stein
APPROVED BY DESIGN METHODS ENGINEER

REVISION DATE 10-29-02

DECELERATION TAPER
FOR 16' EXIT RAMP